REMARKS

Claims 13-16 are pending in the subject application. Claim 13 is the sole independent claim.

Applicants appreciate the Examiner's previous acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document in connection with parent application, Serial No. 10/103,756.

Applicants appreciate the Examiner's previous acceptance of the drawings filed on December 8, 2003.

Claims 13-16 are presented to the Examiner for further prosecution on the merits.

A. Introduction

In the outstanding Office action, the Examiner rejected claims 13-16 under 35 U.S.C. § 112, second paragraph, and rejected claims 13-16 under 35 U.S.C. § 102(b) as being anticipated by French Publication No. 2,760,130 to Michel et al. ("the Michel et al. reference").

B. Asserted Indefiniteness Rejection of Claims 13-16

In the outstanding Office action, the Examiner rejected claims 13-16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is respectfully submitted that this rejection is traversed for at least the following reasons.

In rejecting claims 13-16, the Examiner stated:

> For instance, Claim 13 lines 10-11, claims "a low-concentration junction area formed to a third depth in the substrate under the horizontal protruding portion of the L-shaped upper spacer ...". The Examiner is uncertain as to how this condition may exist because medium-concentration region 182 is formed off of the vertical sidewall of upper spacer 151 (i.e. -- it is located under the horizontal portion of L-shaped upper spacer 151), and region 190 is not formed until upper spacer layer 151 is removed. Since medium-concentration region 182 already occupies the region

> beneath the horizontal protruding portion of the L-shaped upper spacer 151, low-concentration region 190 may not. According to Figure 9, low-concentration region 190 may occupy the region under the horizontal protruding portion of the L-shaped lower spacer 142 or low-concentration region 190 may occupy the region beneath the previously existing vertical sidewall of L-shaped upper spacer 151.

Office Action Made Final of Nov. 2, 2004, at p. 2. The Examiner indicated that similar language is recited in claim 14.

In the outstanding Office action, the Examiner identifies the L-shaped upper spacer of claim 13 as the spacer indicated in the drawing figures, e.g., Fig. 11, by reference numeral 151 and the L-shaped lower spacer of claim 13 as the spacer indicated in the drawing figures by reference numeral 142. However, in the context of the present invention and, more specifically, claim 13, the L-shaped upper spacer is actually the spacer indicated by reference numeral 142 in Fig. 11 (not 151, which is an interim spacer and is not included in the final structure) and the L-shaped lower spacer is actually the spacer indicated by reference numeral 131 in Fig. 11 (not 142, which is the upper spacer).

Although the Examiner correctly indicated that the low-concentration region 190 may not occupy the region under the horizontal protruding portion of the L-shaped spacer 151, this spacer 151 is not the L-shaped upper spacer in the context of claim 13. Further, the Examiner correctly indicated that the low-concentration region 190 may occupy the region under the horizontal protruding portion of the L-shaped spacer 142, which is not the lower spacer, but rather, is the upper spacer, as recited in claim 13.

Thus, the low-concentration region 190 is formed to a third depth in the substrate under the horizontal protruding portion of the L-shaped upper spacer, i.e., spacer 142, as recited in claim 13.

Accordingly, reconsideration and withdrawal of this rejection of claims 13-16 are respectfully requested.

C. Asserted Anticipation Rejection of Claims 13-16

In the outstanding Office action, the Examiner rejected claims 13-16 under 35 U.S.C. § 102(b) as being anticipated by the Michel et al. reference. Applicants respectfully submit that this rejection is traversed for at least the following reasons.

More specifically, applicants respectfully submit that the cited prior art reference fails to disclose or suggest "a low-concentration junction area formed to a third depth in the substrate under the horizontal protruding portion of the L-shaped upper spacer," as recited in claim 13. Thus, it is respectfully submitted that the subject invention, as presently claimed, is patentably distinct from the cited prior art reference.

The Michel et al. reference discloses a lightly doped zone 31, 32, a medium doped zone 73, 74, and a more heavily doped zone 75, 76. The lightly doped zone 31, 32 is formed under a vertical portion of an L-shaped upper spacer 71, 72. The medium doped zone 73, 74 is formed under a horizontal portion of the L-shaped upper spacer 71, 72. The more heavily doped zone 75, 76 is formed beyond the horizontal portion of the L-shaped upper spacer 71, 72. *See the Michel et al. reference at the Abstract and Fig. 8.* In the Michel et al. reference, the lightly doped zone 31, 32 is formed prior to formation of the L-shaped upper spacer 71, 72, i.e., without the L-shaped upper spacer 71, 72 being present. *See the Michel et al. reference at Fig. 3.* Subsequently, the L-shaped upper spacer 71, 72 is formed, the medium doped zone 73, 74 is formed under the horizontal portion of the L-shaped upper spacer 71, 72, and the more heavily doped zone 75, 76 is formed beyond the horizontal portion of the L-shaped upper spacer 71, 72. Resultantly, the lightly doped zone 31, 32 is not formed under the horizontal portion of the L-shaped upper spacer 71, 72, as recited in claim 13 of the present invention.

On the contrary, in the present invention, the low-concentration junction area 190 is formed, after removal of an L-shaped interim spacer 151, in a region of the substrate, which was previously covered by the L-shaped interim spacer 151, using an L-shaped lower spacer 131 and an L-shaped upper spacer 142 as an ion implantation mask. *See Serial No. 10/728,811, at ¶ [0046] and Fig. 9.* Resultantly, the low-concentration junction area 190 is formed to a third depth in the substrate under the horizontal protruding portion of the L-shaped upper spacer, i.e., spacer 142, as recited in claim 13.

This distinction is further demonstrated by comparing a width of the medium doped zone 73, 74 to a width of the horizontal portion of the upper spacer 71, 72 in the Michel et al. reference and a width of the medium-concentration junction area 182 to a width of the horizontal portion of the upper spacer 142 in the subject application. In the Michel et al. reference, the medium doped zone 73, 74 has a width substantially the same as a width of the horizontal portion of the upper spacer 71, 72. *See Fig. 8 of the Michel et al. reference.* On the contrary, in the present invention, the medium-concentration junction area 182 has a width that is less than a width of the horizontal portion of the upper spacer 142. *See Fig. 10 of the subject application.* In the present invention, the medium-concentration junction area 182 and the low-concentration junction area 190 combine to have a width substantially the same as a width of the horizontal portion of the upper spacer 142, although the medium-concentration junction area 182 and the low-concentration junction area 190 may together have a slightly greater width as a portion of the low-concentration junction area 190 may extend under the vertical portion of the upper spacer 142.

In view of the above distinction between the subject invention as presently claimed and the cited prior art reference, independent claim 13 is believed to be in condition for allowance, and a notice to that effect is respectfully requested.

Further, because the remaining claims, claims 14-16, depend, either directly or indirectly, from claim 13, claims 14-16 are believed to be similarly allowable as depending from an allowable base claim.

Accordingly, reconsideration and withdrawal of the rejections of claims 13-16 are respectfully requested.

C. Conclusion

Since the cited prior art reference neither anticipates nor renders obvious the subject invention as presently claimed, applicants respectfully submit that claims 13-16 are now in condition for allowance, and a notice to that effect is respectfully requested.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

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PETITION and DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.